

102793-157
MBJ-0361

AMENDMENTS TO THE CLAIMS

Claims 1 and 2 (cancelled)

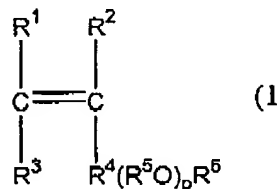
Claim 3 (currently amended)

3. A cement additive according to claim 1, comprising:

- (a) a polycarboxylic acid copolymer and/or a salt thereof and a polyalkylene glycol compound, wherein said polycarboxylic acid copolymer contains at least one species of copolymer derived from at least an unsaturated polyalkylene glycol ether monomer (A) and an unsaturated mono- or dicarboxylic acid monomer (B) as its monomer component;
or
- (b) a polycarboxylic acid copolymer and/or a salt thereof and a polyalkylene glycol compound, wherein said polycarboxylic acid copolymer contains at least one species of copolymer derived from at least an unsaturated polyalkylene glycol ether monomer (A) and an unsaturated mono- or dicarboxylic acid monomer (B) as its monomer component and said polycarboxylic acid copolymer is additionally derived from an unsaturated polyalkylene glycol ester monomer (C) and/or monomer (D), which is copolymerizable with monomers (A) and (B), or with monomers (A), (B) and (C);

wherein for (a) and (b),

the monomer (A) is a compound according to general formula (1)

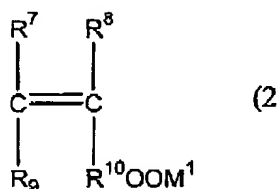


wherein R^1 , R^2 and R^3 are each independently hydrogen or methyl, provided that not all are methyl; R^4 is $-\text{CH}_2\text{O}-$, $-(\text{CH}_2)_2\text{O}-$, $-\text{C}(\text{CH}_3)_2\text{O}-$ or $-\text{O}-$; the total carbon number of R^1 , R^2 , R^3 and R^4 is 3; R^5O is one or more species of C_2 - C_4 oxyalkylene groups, and, in the case of two or more

102793-157
MBJ-0361

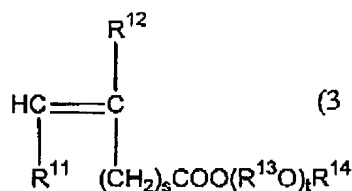
species, ~~may be~~ is optionally block or random; R^8 is hydrogen or a C_1 - C_{22} alkyl, phenyl or C_1 - C_{18} alkylphenyl group; p is an integer from on average 1 to 100,

the monomer (B) is a compound according to general formula (2):



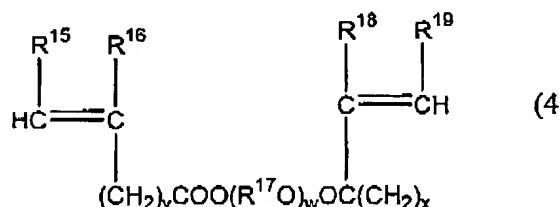
wherein R^7 and R^8 are each independently hydrogen or methyl; R^9 is hydrogen, methyl or $-(CH_2)_qCOOM^2$; R^{10} is $-(CH_2)_r$; q and r are each independently an integer from 0 to 2; M^1 and M^2 are a monovalent metal, a divalent metal, ammonium or an organic amine;

the monomer (C) is a compound according to general formula (3):



wherein R^{11} and R^{12} are each independently hydrogen, methyl or $(CH_2)_uCOOM^3$, u is an integer from 0 to 2, M^3 is a monovalent metal, a divalent metal, ammonium or an organic amine; $R^{13}O$ is one or more species of C_2 - C_4 oxyalkylene groups, and, in the case of two or more species, ~~may be~~ is optionally block or random; R^{14} is a C_1 - C_{22} hydrogen or an alkyl, phenyl or C_1 - C_{22} alkylphenyl group; s is an integer from 0 to 2; t is an integer an average from 1 to 300; and

the monomer (D) is a compound according to the following general formula (4):

102793-157
MBJ-0361

wherein R^{15} , R^{16} , R^{18} and R^{19} are each independently hydrogen or methyl, provided that not all are methyl; $R^{17}O$ is one or more species of C_2 - C_4 oxyalkylene groups, and in the case of two or more species, may be is optionally block or random; w is an integer an average from 1 to 300; v and x are each independently an integer from 0 to 2.

Claim 4 (currently amended)

4. A cement additive according to claim 4 3, wherein the composition ratios of the monomers (A) and (B) in the polycarboxylic acid type copolymer are 30-100 mole % based on the total mole amount of their monomers, and the average molecular weight of said polycarboxylic acid type copolymer is from 3,000 to 100,000 as measured by gel permeation chromatography with polyethylene glycol as standard.

Claim 5 (currently amended)

5. A cement additive according to claim 4 3, wherein the average molecular weight of the polyalkylene glycol derivative is from 1,000 to 100,000 as measured by gel permeation chromatography with polyethylene glycol as standard, and in which the alkylene is one or more C_2 - C_4 species, and the terminal group of the polyalkylene glycol is hydrogen, a C_1 - C_{18} alkyl group or a phenyl group.

Claim 6 (currently amended)

6. A cement additive according to claim 4 3, containing 100 weight parts of the polycarboxylic acid type copolymer and 10-50 weight parts of the polyalkylene glycol derivative in the mixing proportion.

Claim 7 (currently amended)

7. A cement additive according to claim 4 3, wherein the amount used in a cementitious

102793-157
MBJ-0361

composition is such that the amount of polycarboxylic acid type copolymer cement is 0.05-1.0% by weight based on the weight of cement, and the amount of the polyalkylene glycol derivative to cement is 0.005-0.5% by weight based on the weight of cement.

Claim 8 (currently amended)

8. A high strength concrete mix, comprising a cement mix and a cement additive according to claim 4 3.

Claim 9 (currently amended)

9. A high strength concrete mix for the production of articles by steam curing, comprising a cement mix and a cement additive according to claim 4 3.

Claim 10 (cancelled)

Claim 11 (currently amended)

11. A method of preparation of a high-strength concrete mix, comprising the incorporation into a concrete the mix of a cement additive according to claim 4 3.

Claim 12 (currently amended)

12. A high strength concrete mix, comprising a cement mix and a cement additive according to claim 2 5.

Claim 13 (currently amended)

13. A high strength concrete mix, comprising a cement mix and a cement additive according to claim 3 7.

Claim 14 (currently amended)

14. A high strength concrete mix for the production of articles by steam curing, comprising a cement mix and a cement additive according to claim 2 3.

Claim 15 (currently amended)

15. A high strength concrete mix for the production of articles by steam curing, comprising a cement mix and a cement additive according to claim 3 5.

102793-157
MBJ-0361

Claim 16 (currently amended)

- B' 16. A method of preparation of a high-strength concrete mix, comprising the incorporation into a concrete ~~the mix of a cement additive~~ according to claim 2 5.

Claim 17 (currently amended)

17. A method of preparation of a high-strength concrete mix, comprising the incorporation into a concrete ~~the mix of a cement additive~~ according to claim 3 7.